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# Data Platform Modernisation: Machine Learning

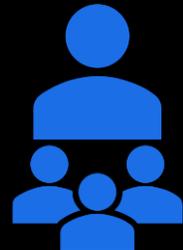
# Agile Delivery for Maximum Business Flexibility

Urgent Feedback and Removal of Blockers

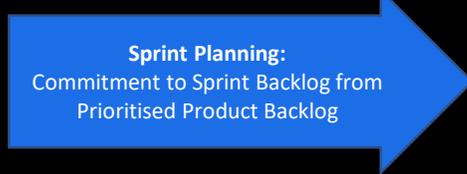
Weekly Budget & Progress Status Reporting, Source Control, RAID Registers (Risks, Actions, Issues Decisions), Approvals Register, Peer Review Sign-Off and other Important Feedback

Input from Client Team, SMEs, Executives and Stakeholders

Client Product Owner or Program Manager

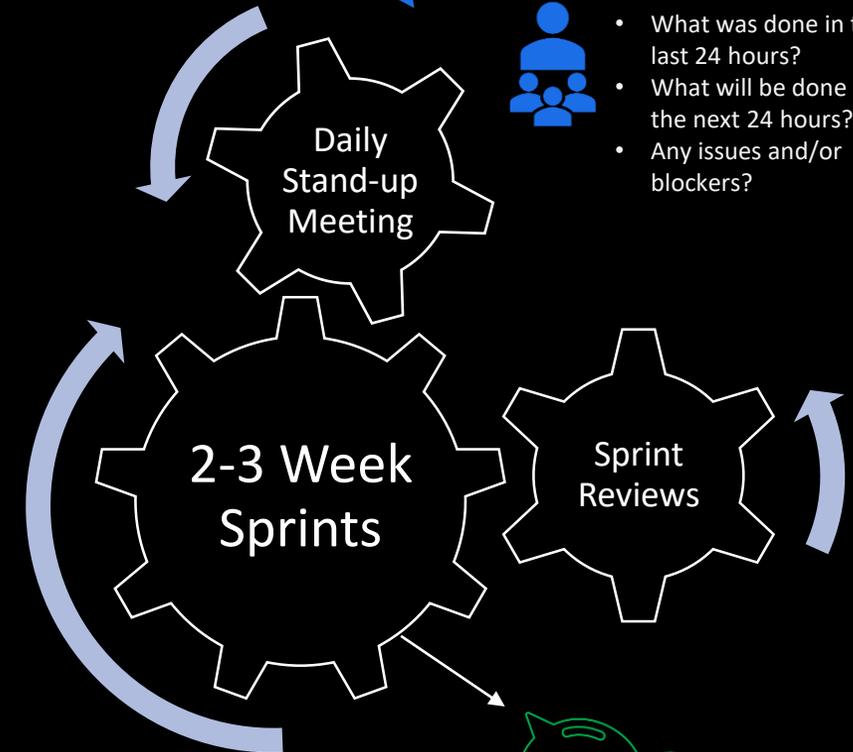


Delivery Team



- Product Backlog
- Backlog Item 1
  - Backlog Item 2
  - Backlog Item 3
  - Backlog Item 4
  - Backlog Item 5
  - Backlog Item 6
  - Backlog Item 7
  - Backlog Item 8
  - Backlog Item 9
  - Backlog Item 10

- Sprint Backlog
- Backlog Item
  - Backlog Item

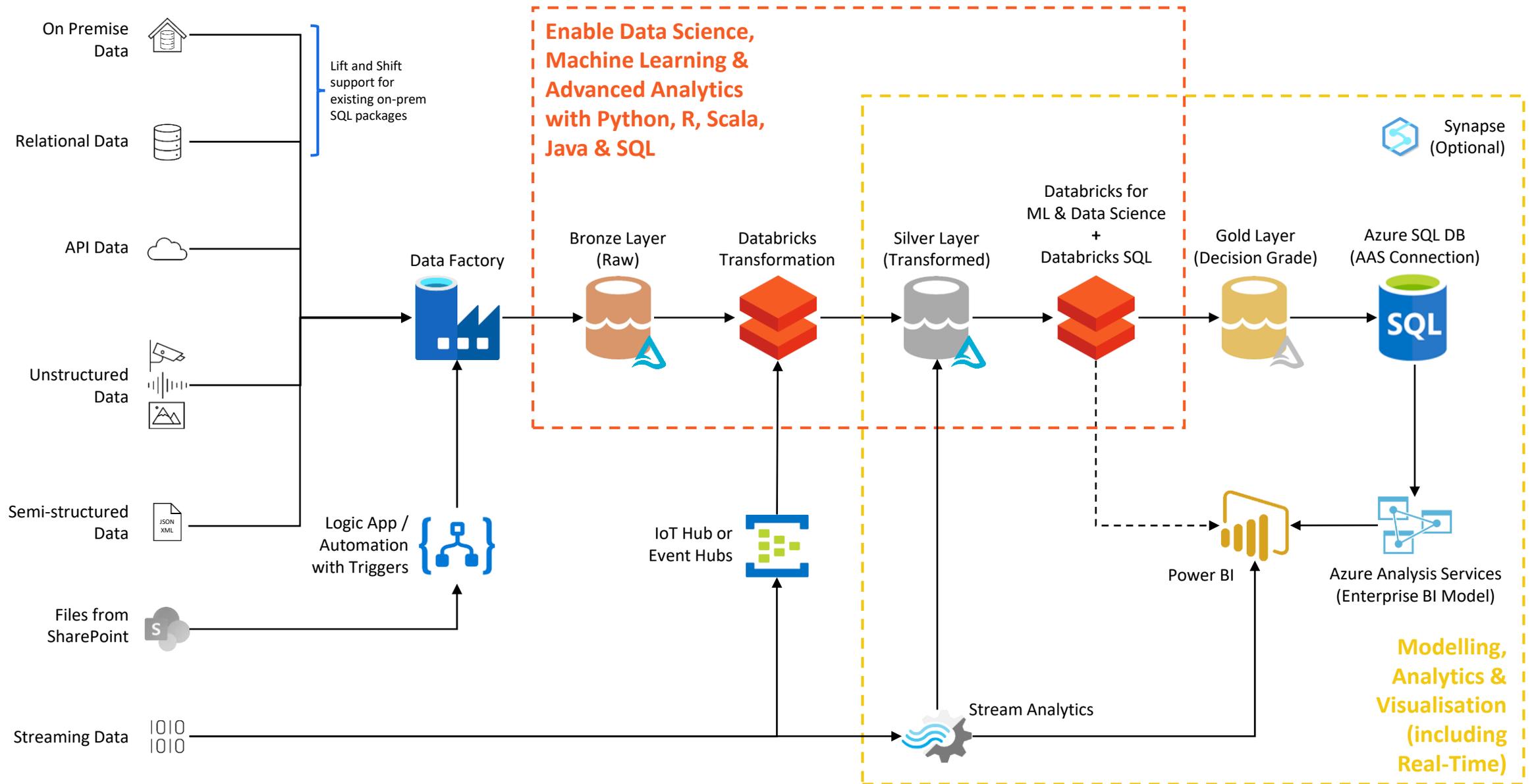


- What was done in the last 24 hours?
- What will be done in the next 24 hours?
- Any issues and/or blockers?

Potentially Shippable Product Increment (Sprint Output)

Improvements, Defects, Bugs and New Ideas

# 5-Day Data Lakehouse Implementation (Azure EBI)



# Machine Learning Accelerators

Minimise Time-to-Value by Leveraging on our ML Accelerators and Experience

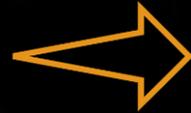
## Pre-Built Features and Methods

- Automated Exploratory Data Analysis.
- Hundreds of critical time-based features including MoM, QoQ, YoY, Day, Month, Seasonality, Public Holidays and much more.
- Business Features such as financial views, sales views and product grouping considerations.
- Tried and Tested rollback windows and cross-validation methods.
- APIs, Connectors, ML Pipelines and Architectural Templates for Azure
- Data Cleansing and Error Detection.

## Pre-Built Accuracy Improvement and Computational Efficiency Methods

- Pre-designed methods for combining predictive models to increase accuracy and performance (for example, the combination of XGBoost and ElasticNet models).
- Ensembled Neural Networks Methods.
- Hyper-parameterisation and Tuning Guides.
- Efficient, Low Overhead Scenario Modellers.

# Our End-to-End Approach



## Opportunity Catalogue

### Activities:

- Site Walkthroughs
- Data Landscape Maturity Assessment
- Board Priority Identification
- Business Priority Identification
- Operations Research
- Exploration with SMEs
- Top 10 Cost Drivers
- Top 10 Revenue Drivers

### Outputs:

- Opportunity Priority List
- Opportunity Roadmap
- Business Case Development
- Architecture Strategy

## Design, Build & Test

- Security by Design & AD
- IOT and Edge Considerations
- Platform Adoption
- Provisioning Environments
- Design Workshops
- Define Architectures
- Network Design
- UX Design
- Disaster Recovery
- Process Design
- Application Development
- SME Validation
- Information Flow
- Dev Ops (CI/CD)
- Testing
- Deployment
- Platform Monitoring
- Change Management
- Documentation

## AI & Optimisation

- Reporting
- Master Data Management
- KPI Monitoring
- Dashboards
- Stream Analytics
- Text and Sentiment Analytics
- Image Recognition
- Emotion API
- Natural Language Processing
- Voice Analytics
- Video Analytics
- Model Optimisation
- Machine Learning
- Unsupervised Learning
- Reinforcement Learning
- Decision Support
- Recommendation Engines
- Simulations
- Digital Twins
- Autonomous Control
- Physical Automation

## Business Transformation

- Return on Investment
- Operational Efficiency
- Additional Revenue
- Reduced Cost
- Increased Customer Satisfaction
- Increased Market Share
- Board & Executive Assurance
- Risk Mitigation

# Outsource Advanced Data & AI Projects to Guarantee Outcomes, Reduce Risk & Minimise Cost

- A **broad mix of skillsets** is required to deliver typical Data & AI projects; each skillset often only required for specific part of the project.
- A team of **specialists with distinct skills** will always deliver a project with higher quality, and faster than a generalist (lower cost and improve development velocity).
- Low staff turnover means we have a tightly knit team that works well together and retains **IP and knowledge** about your long-term projects.
- Experience! AI Consulting Group accelerates projects with IP, accelerators as code, pre-written deployment practices, previous learnings and proven frameworks which means that even if our project is more expensive per hour, its still more cost effective over the project.
- Risk mitigation - we offer **fixed prices for fixed outcomes**, effectively reducing the risk of your project.

## Typical Data & AI Projects might involve:

- Management Consultants & Project Strategists
- Program / Project Managers
- Data Engineers
- Data Scientists
- Business Intelligence Analysts
- Cloud, Infrastructure & Security Architects
- IOT Specialists
- Application Developers
- Scrum Masters & Change Managers

